**Aversive Learning Assay Protocol**

Four experimental tanks are set up with four lanes each prior to the assay.

System water is then added to the tanks (and replaced after each assay) before gently netting one fish into each lane.

Fish IDs are tracked using removable tags on the front of the experimental tanks.

Tanks are placed inside the Zantiks AD units ready for the assay to begin.

The automated assay is controlled using an external interface.

The first 30 minutes of the assay is the acclimation period where no stimuli are shown.

Next is the 30-minute baseline period where two visual stimuli (taking up half of the tank each) are displayed through the bottom of the tank.

These colours (visual stimuli) switch every 5 minutes and the fish are tracked to establish a baseline colour preference.

Next is the conditioning period where a mild electric shock is administered 9 times over a minute and a half.

Last, the probe phase where colours switch every 1 minute for a total of 5 minutes (only first 2 minutes were used in analysis) to establish a new colour preference that when compared to the baseline determines aversive learning.